DOCUMENT RESUME

ED 424 971 PS 027 103

AUTHOR Sharfstein, Joshua; Sandel, Megan
TITLE Not Safe at Home: How America's Housing Crisis Threatens the Health of Its Children. A Research Report.
INSTITUTION Children's Hospital Medical Center, Boston, MA.
PUB DATE 1998-02-00
NOTE 48p.
PUB TYPE Reports - Evaluative (142)
EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Asthma; *Child Health; Childhood Needs; Children; Chronic Illness; Economically Disadvantaged; Environmental Influences; Homeless People; Housing; *Housing Deficiencies; Housing Needs; Lead Poisoning; Nutrition; Poverty; Safety; Special Health Problems
IDENTIFIERS Child Safety; Respiratory Diseases

ABSTRACT

Through an Internet campaign, the Doc4Kids Project gathered stories from pediatric caregivers about children whose health has been compromised by poor housing and whose health has been improved by housing assistance. The medical literature was also reviewed to estimate the total impact of inadequate housing on child health in the United States. The goal of this compilation was to redefine America's housing crisis as a catastrophe for child health. The report contains these sections: (1) "Background. U.S. Housing Crisis: The Facts"; (2) "The Consequences of Inadequate Housing" (asthma and respiratory disease, injuries, lead poisoning, homelessness, malnutrition); (3) "Double Trouble: Chronic Disease and Inadequate Housing"; (4) "Statistics: The Impact of Inadequate Housing on Child Health"; and (5) "Recommendations for Action." General recommendations include changes to housing voucher programs and collaboration between health care institutions and housing authorities. Recommendations are also provided in the areas of asthma, lead poisoning, injuries and violence, malnutrition, and homelessness. Includes notes and an appendix containing stories submitted to the Doc4Kids Project. (EV)

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How America's Housing Crisis Threatens the Health of Its Children

A Research Report

The Doc4Kids Project
Boston Medical Center
Children's Hospital

February 1998

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A Research Report

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Children's Hospital

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Published by
The Doc4Kids Project
Boston Medical Center and Children's Hospital
Boston, Massachusetts

Project Directors
Megan Sandel, M.D. and Joshua Sharfstein, M.D.

Report Editors
Joshua Sharfstein, M.D. and Megan Sandel, M.D.

Other Contributors
Seth Kaplan, M.D., Tracy King, M.D., and Mary Pulaski, M.D.

Illustrator
Jack Maypole, M.D.

Other Doc4Kids Participants
Sarita Chung, M.D., Jack Maypole, M.D., Katie Plax, M.D., Rob Nordgren, M.D.

Administrative Support
Jessica D'Arcy
Rebecca Onie

Financial Support
Barry Zuckerman, M.D.
Boston Medical Center Department of Pediatrics

Reviewers
Felicia Collins, M.D., Lois Doerr, R.N., Josh Greenberg, J.D., Alan Meyers, M.D., Sean Palfrey, M.D., Suzanne Steinbach, M.D., Paul Wise, M.D., Jean Zotter, J.D., Barry Zuckerman, M.D.

Address
Doc4Kids Project, c/o Department of Pediatrics, Dowling 3,
Boston Medical Center, 818 Harrison Avenue, Boston MA 02118.
Phone: (617) 534-2229. Email: doc4kids@bu.edu

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The Doc4Kids Project

As doctors training for a career in pediatrics, we care for children whose life-threatening asthma attacks are made worse by bedrooms infested with cockroaches. We tend to the wounds of toddlers who live in unsafe apartments. We chart the slow recovery of schoolchildren whose brains have been poisoned by lead and watch as clean-up efforts at home come too little and too late. We provide care for the numerous ailments of homeless children as they wind their way through the shelter system.

Time and time again, we try to help our most vulnerable patients and their families find safe, affordable housing. But even when poor housing is the cause of a child's illness, we have watched families wait months and even years for safer, subsidized housing.

The Doc4Kids Project developed out of our clinical experiences to expose and detail the consequences of America's housing crisis for its children. Through a national internet campaign (using our email address doc4kids@bu.edu), we have obtained stories from pediatric caregivers of children whose health has been compromised by poor housing and whose health has been improved by housing assistance. We have also reviewed the world's medical literature to estimate the total impact of inadequate housing on child health in this country.

Our goal is to shed new light on an old problem. By shedding light on this tragedy and putting human faces on its victims, we would like to redefine America's housing crisis as a catastrophe for child health. Seen through a pediatrician's eyes, housing is a medical as well as a social need. As welfare reform leads many families into work, support for quality housing will become even more important.

While we have changed names, all stories in this report are true.

We appreciate the assistance and support of the National Alliance to End Childhood Lead Poisoning, the National Low-Income Housing Coalition, *Pediatric News* and the *American Academy of Pediatrics News*. Most of all, we thank all the caregivers who sent us stories and the children and families who inspired them. We hope you find our report interesting and relevant. Please send us any questions, comments, stories and ideas.

Josh

Joshua Sharfstein, M.D.

Megan

Megan Sandel, M.D.

Selections from Stories Submitted to *doc4kids@bu.edu*

Boston:

I just witnessed the reunification of a young mother with her three children in a homeless shelter. The family had previously lived together in an overcrowded apartment with several other members of their extended family. When the three children (ages two, five and six) all tested high for lead, the mother voluntarily signed the children over to custody of the Department of Social Services so they could be placed in a lead-free home. The mother then tried and failed to find a safe and affordable apartment for her family; moving to a shelter became her only chance to live with her children in safety. She is now homeless, searching for affordable housing, with little hope for securing a unit. At least her children have their mother back.

Philadelphia:

I care for a family in my clinic that is made up of a 1-year-old, 2-year-old, 5-year-old and 25-year-old mother. The family lives with the mother's parents for financial reasons. On a home visit with the family, I discovered that the grandfather is terminally ill, and the entire first floor of the home is being used as his hospital room. The children must go through the room to reach the kitchen, small family room, and their bedroom. There are 15 or so medicine bottles within reach of the two older children as well as syringes and needles. The whole family sleeps in the same room in a single bunk bed. The portable potty trainer for the 2-year-old sits at the corner of the room. The children have not had any ingestions, but have come to the emergency department for multiple laceration and head trauma from falling from the bunk bed. For now, the mother has no financial way out of her living situation.

San Francisco:

A set of stories would not be complete without Billy, a Cambodian boy with Apert's syndrome and a tracheostomy who lives in a single room with around eight siblings. His home care nurse told me she has suctioned a cockroach out of his tracheostomy collar.

Seattle:

I cared for a 8 year old boy with a forearm fracture after falling while climbing on a rickety broken fence in the VERY small outside area they had to play in. I have also watched gang behavior develop in these boys (believe me, I would join a gang, too, if I had to roam those halls alone!), but I guess some people don't consider that health–related...

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U.S. HOUSING CRISIS: THE FACTS

Dimensions of the Crisis

For approximately *10 million* American families, housing is too expensive, substandard, or both.[1]

Cost: The U.S. Department of Housing and Urban Development (HUD) considers housing to be affordable if it consumes less than 30 percent of a family's income. But according to the 1993 American Housing Survey, conducted by the Census Bureau:[2]

> *Nearly 2 million U.S.* families with children have "worst case housing needs," meaning "unassisted with rent burden of 50 percent of income or more, or severe physical problems" in the apartment.

- About three of four poor U.S. families spend more than 30% of income for rent.
- More than one-third of very low income families spend over *70%* of their income for rent.

Quality: Housing is considered severely physically inadequate if it "lacks complete plumbing or a complete kitchen, has inadequate heating, has structural or maintenance problems and/or lacks adequate electricity."[2] From the 1993 housing survey:

- Over 1.2 million U.S. households live in housing with severe or moderate physical problems.
- 700,000 poor renter households suffered in overcrowded living conditions.[3]

Families with children have some of the most acute housing needs. According to HUD, in 1989, *nearly 2 million* families with children suffered "worst case housing needs," meaning "unassisted with rent burden of 50 percent of income or more, or severe physical problems."[1]

Homelessness

When there is no shelter—or when available shelter is unbearable—families turn to the streets. The General Accounting Office estimated in 1989 that 41,000 to 107,000 children are literally homeless on any given day, with 39,000 to 296,000 more in "doubled up" or shared housing.[4]

Housing Programs

Government programs help families in two ways: either by providing apartments at low rent or by giving certificates for subsidies and allowing families to find their own apartments.

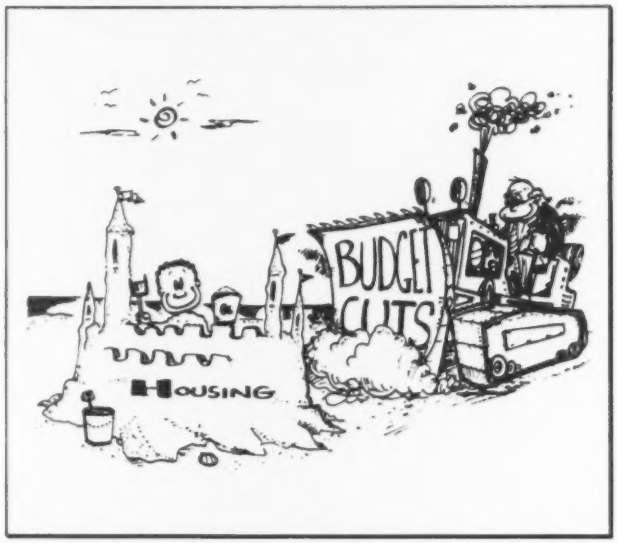
These programs play a critical role for recipients: over half of poor renter households with housing costs less than 30% of income lived in subsidized housing in 1993.[3]

However, since there is no guarantee of assistance, the vast majority of eligible families (several *million* each year)[5] cannot participate in these programs.

Public Housing: Government-run housing began in 1937, when the national government distributed

money so local housing authorities could build low-income dwellings. Over time, these buildings concentrated the urban poor, and many developments became dangerous and ill kept. Support for building new developments evaporated. Still, 1.3 million families live in public housing.[6] The average waiting time is nearly a year and a half.[7]

Housing Subsidies: The federal government also provides portable housing assistance to 1.5 million poor families in the form of Section 8 certificates. This form of housing aid allows families to choose where to live, while guaranteeing that they do not have to pay more than 30% of their income for rent.



Section 8 funds also directly support thousands of housing units for use by poor families (otherwise known as "project based" Section 8). Many 15-20 year contracts for housing built 15-20 years ago are now expiring, requiring major new outlays just to maintain available low income housing.[8]

The waiting list for Section 8 averages over three years.[7]

Current Legislation

Congress is currently considering legislation to revamp public housing assistance. While the threat of the elimination of all housing aid looms, it appears not to be a danger in this fiscal year.[9]

Congressional attention has instead focused on the waiting list for housing assistance: who should get priority?

House Republicans, lead by Representative Rick Lazio of New York, have attempted to set aside housing units for families earning 30 to 80% of an area's median income—at the expense of an area's poorest families.

In theory, having wealthier families in public housing developments will improve maintenance as families pay more for rent while preserving an economic balance. However, housing advocates have pointed out that the poorest families have nowhere to go. If Section 8 vouchers for the very poor are also cut back, then thousands more families may wind up homeless.

As Christopher Jenks, author of "The Homeless," wrote in the New York Times, "If Congress wants to reduce the number of very poor families in public housing, it should make it much easier for such families to get Section 8 certificates...[But] a housing law that simply denies the existence of [the poorest] families could easily turn out to be worse than what we have now."[7]

Consequence #1: Asthma and Respiratory Disease

*When 5 year old **Jose** and his 3 year old sister **Maria** suddenly developed breathing problems, their doctor was puzzled. The usual medical treatments didn't work, and the symptoms persisted even after their mother followed instructions to rid the apartment of rugs, dust and cockroaches. The pediatrician initially disregarded the mother's frustration with her neighbor's smoking—until she realized that the smoke flowed right into Jose and Maria's apartment through a large hole in the living room wall.*

In asthma, the airways of the lungs become irritated and swollen enough to cause difficulty breathing. An asthma attack feels like trying to catch air while breathing through a straw. If uncontrolled, asthma can progress to the point where the airways are swollen shut; indeed, asthma kills hundreds of U.S. children each year.[10]

Doctors can often treated asthma attacks with medication, but prevention requires changes at home: removing or decreasing common irritating factors including smoke, cold, dust-mites, and, most recently discovered, cockroaches.

However, as Jose and Maria's situation illustrates, sometimes these simple causes of asthma attacks are anything but easy to control.

Asthma on the rise

Asthma is the most common chronic illness in childhood[11] affecting an estimated 11 to 12 percent of black children and 8 to 9 percent of white children in inner cities.[12] In the last decade, this common illness has become much more common, increasing by 29 percent.[13] The hospitalization rate for asthma is almost three times as high among African-American children under the age of 5 compared to their white counterparts[14] and the mortality rate is significantly higher as well.[15] This racial difference has been explained in large part by African-Americans' poor access to a regular source of health care.[12]

Substandard housing triggers asthma attacks by exposing residents to irritating factors including smoke, cockroaches, dust mites, mold, rats and mice. In allergic children, long-term exposure to these substances can be life-threatening. Dry heat and lack of heat can also cause dangerous asthma flares.

***Lawton** is an 11-year boy who has been admitted to the hospital 5 times over the last 9 months for asthma. His roof at home leaks water into the living area, and he is allergic to mold, dust mites and cockroaches. Their landlord has ignored requests to repair the apartment, and his mother feels "trapped" because she cannot afford to move.*

Cockroaches

Inadequate housing and overcrowding are commonly associated with infestations of cockroaches, rats and mice. Studies have estimated that almost half of poor children live in housing overrun with such pests in

comparison to only 12% of nonpoor children.[16]

There is mounting evidence that cockroach exposure causes worsening of children's asthma. A 1997 study found that children allergic to cockroaches who were exposed to them at home suffered:[17]

- 3.4 times more hospitalizations than other asthma patients
- 78% more unscheduled visits to health care clinicians
- More days of wheezing
- More nights awake struggling to breathe
- More missed school

***Ashley** and **Ron**, ages 15 and 13, were visiting their lung doctor recently because they have spent many nights in the hospital this year due to asthma. Both are known to be allergic to cockroaches, dust mites and mold. When their doctor lifted Ashley's shirt to listen to her lungs, a cockroach fell and scooted across the examining table.*

In another study, children living in an urban area were 4.4 times more likely to have cockroach allergen in their bedroom than children from suburban areas, and poor children were 4.2 times more likely to be exposed to cockroaches at home than the nonpoor.[18]

Another researcher found that cockroach sensitization was a significant risk factor for asthma attacks.[19]

Dust Mites, Inadequate Heating

Children with asthma are also put at risk for more severe disease by other factors associated with inadequate housing, including dust mites found in old carpeting. The common dust mite has been implicated as a cause for the worldwide increase in this deadly disease.[20]

As many as one in four children in poor housing have inadequate heat or hot water[16]–other factors linking poor housing with asthma attacks.[21]

Expensive housing, more asthma

Costly housing can increase rates of asthma attacks in two ways. First, when families move in together to share expenses, the resulting crowding can increase the number of respiratory infections and reduce air quality. Indeed, both a large family and small living space have been independently associated with more asthma.[22]

Second, more money spent for rent can reduce available funds for asthma treatment. Families of children with asthma can spend from 2–30% of their income on necessary medications.[21]

Infectious Disease

In addition to asthma, poor housing and crowding can lead to increased rates of infection with such respiratory viruses as the Respiratory Syncytial Virus. Infection with this virus can threaten the life of former premature babies[23] and can predispose other children to asthma.[24] Water damage to run-down housing also sets the stage for *stachybotroys atra*, a fungus whose toxin has been linked to fatal hemorrhage in the lungs of infants.[25]

For all these reasons—cockroaches, mold, dust, infections, and overcrowding—inadequate housing can literally take a child's breath away.

CONSEQUENCE #2: INJURIES

At a routine physical exam, the doctor noticed extensive, well healed burn marks on both of Donald's legs. Donald's family had been living in an unfurnished room in a dilapidated house in North Philadelphia, many of the other tenants being crack addicts. There were no beds, no kitchen to cook in and Donald had been sleeping on the floor when the hot plate his mother was cooking with fell on him. He suffered third degree burns and needed to be admitted to the hospital.

But Donald's admission to the hospital had treated more than his burns. A social worker visited the home and declared it unfit for children. Donald and his family were placed on the waiting list for Section 8 housing. After several years, they received the subsidy and were able to move to a small row house. Donald and his family now have a kitchen, a yard and a safe neighborhood, luxuries they have not known for many years.

Accidents, like the one that happened to Donald, are the leading cause of death among children 1 to 14 years of age.[26] Though accidents associated with motor vehicles are the most common, forms of accidents associated with housing (falls, burns, drownings and fires put together) are almost equal to that number. Such accidents associated with problems in housing result in over 5,000 deaths annually, and over 1.4 million injuries each year. Considering burns and fires alone, over 54,000 Americans are admitted to the hospital, and an estimated lifetime cost from fire and burn injuries from one year has been as high as $3.8 billion.[27]

Burns

Two ways that burns can be associated with housing conditions is tap water temperatures and home heating burns. It has long been established that hot water heater temperature settings have been associated with increased incidence and severity of burns.[26]

Yet, in one study, over 98% of poor families did not know what temperature their hot water should be to prevent burns[28] and many poor families have no way of easily knowing or controlling their hot water settings in their apartments.

Reports of home heating burns are extremely common, either from wood stoves, kerosene heaters, floor furnaces or exposed home radiators, and these burns can cause serious life-long injury. In 1993, approximately 1800 children visited emergency rooms for burns related to nonvehicle radiators alone.[29]

In a study conducted in Chicago between 1991-1994 it was shown that a majority of radiator burns were caused by uncovered radiators in an inner-city housing development.[29] In all buildings where the affected children lived, there were steam radiator systems, with temperatures from 180° F- 230° F and in buildings where more than one burned child lived, 79% were missing radiator covers, insulation over radiator pipes or both. Many children slept in beds too close to radiators due to over-crowding, and one child suffered a burn while waiting for repairs in the radiator to be made.

In Chicago, steam radiators are very common in older buildings, and there

are no regulations requiring covering of radiators in private or public housing. For many poor parents, options to move are unavailable and many of our stories show their children at danger for severe, and sometimes repeated, burns.

Fires

Fires are the third leading cause of death among children under the age of 14, after motor vehicle accidents and drownings. About three-quarters of deaths from fires are from house fires, some 2000 deaths a year just in children 15 years and under, with the largest group of these children under the age of four. Poor families are at particular risk from fires, whether from higher- risk faulty heating systems or from the use of woodstoves or kerosene heat (when oil or gas is too expensive).[28]

__Laura__, an 8-year-old girl, lived with her mother and 3-year old brother until they were evicted from their unsubsidized apartment. The family reluctantly moved in with relatives while they waited for housing assistance. During this time, Laura was physically abused by a relative, and the Department of Social Services placed her in a foster home.

It has been shown that simple smoke detector use can decrease the risk of dying in a fire substantially, but despite smoke detectors being required by law, about one third of households had no smoke detectors in one survey.[28]

In a study done in New Mexico, death by fire was strongly associated with the type of home.[30] Mobile homes had three times the mortality rate from fires than that of standard homes or apartments, and homes without plumbing carried more than ten times the fatality risk. Since 82% of children who died from fire expired at the scene, it was recommended that the best intervention to prevent these deaths was to improve housing conditions, not better burn units.

Violence

Due to the unaffordability of housing, many poor children are trapped in unsafe neighborhoods or living arrangements. In a study done in Washington, DC, 45% of first and second graders had witnessed a mugging, 47% had seen a shooting, 31% had seen a stabbing and 39% had seen a dead body.[31]

In a survey done at Boston City Hospital, 10% of children in the primary care clinic had witnessed a stabbing or shooting by age 6, half occurring within their own home and half on their street.[32] This exposure to violence can have long term effects, including post traumatic stress disorder, psychotic episodes, and suicidality.[33]

Violence at home is an equal threat. One of the many ways batterers control women is financially. Facing the shelter system—which exposes children to health and social risks—many mothers stay in violent relationships. While the long term consequences of child abuse are well-known, recent evidence has shown that witnessing violence at home may cause children to have many of the same terrible psychological and developmental problems.[31]

CONSEQUENCE #3: LEAD POISONING

I am taking care of a child with a lead level of 60, well above the toxic range, whose house had multiple lead violations. The landlord refused to clean the lead from the house, so the city health department had to intervene. Following de-leading, the landlord reportedly harassed this tenant by not providing heat and by pouring water from her second floor apartment until water leaked into the child's apartment. The mother was referred to tenant rights groups but decided not to fight. Instead, the family moved out to a homeless shelter.

Lead poisoning has long been recognized as a threat to children's health. As early as ancient Greek times, it was known that ingesting large amounts of lead caused severe abdominal pain and even seizures. The relationship of housing conditions to lead poisoning also dates back more than a century. As early as 1894, cases of childhood lead poisoning were being attributed to children eating lead paint off the porches in Brisbane, Australia.[34] It has also been known for many years that children absorb more lead after ingestion than adults.

Lead damages many different parts of the human body. Sudden poisoning can cause abdominal pain, constipation, fatigue, anemia, nerve damage, and altered brain function, which can even lead to coma and seizures.[35] Long-term exposure can harm the blood, the brain, the kidneys, and the reproductive organs.

Of special concern in children are the long term effects of lead on the developing brain. Researchers have noted that children with high levels of lead in the umbilical cord had lower mental development scores and problems with fine motor and interactional/linguistic skills.[36]

It has been estimated that even at lead levels as low as 10-20, much below levels that were previously thought to be dangerous, there is about a 2.5 point drop in IQ for each increase of 10 in blood lead level.[37]

Even in children who appear otherwise healthy, teachers rate children with higher lead levels as having poorer speech and language processing, disordered classroom behavior, more daydreaming, and an inability to follow directions.[38]

Another study found that children with increased lead levels in their teeth were seven times more likely to drop out of high school and over 5 times more likely to have a reading disability.[39]

The Housing-Lead Connection

Housing conditions are the most frequent cause of childhood lead poisoning. Most commonly, children ingest lead from lead-containing paint, mostly in older, often deteriorating housing stock.[40] Besides paint, lead in the soil and water around houses are other possible sources of exposure.[41]

According to NHANES III, a national study looking at many different aspects of Americans health (1991-1994), lead levels are highest

in children living in housing built before 1946, and higher if housing was built between 1946 and 1973 compared to after 1973. This study found that *5.9% of all U.S. children age 1–2 have blood lead levels greater than 10,* placing them at risk. The CDC estimated that about 1 million U.S. children between one and five years have elevated blood lead levels.[40]

Living in older housing may place children more at risk because lead is now banned from household paint, plumbing systems and food and drink cans (as well as gasoline). In a random telephone survey of children across the country, children under the age of 6 were more likely to have an elevated lead level if they lived in housing built before 1960, in a rental home, in the northeast, or with low household income.[42]

My daughter was lead poisoned because nobody told us our house built in 1906 had lead paint. We had to move from there when we found out what was going on, and I believe my child's development is still being affected.

—a mother from rural Missouri

An estimated *14 million U.S. children* in the at-risk age of 0–6 years old still live in housing built before 1960 with the highest concentration of lead paint. Poor and minority children are more likely to face increased risk, but in absolute terms, the majority of at risk children are white.[40]

Lead and the Law

Some legal changes have been responsible for a significant decline in lead exposure over the last 25 years.[40] By the mid 1980s, the EPA had eliminated lead from gasoline, the Occupational Safety and Health Administration had lowered acceptable lead levels in the workplace by 75 percent, the Consumer Product Safety Commission had limited lead in paint to 0.06 percent, and lead solder in water pipes had been banned.[43]

However, the legal approach has had less success in reducing the risk of lead poisoning from poor housing. As early as 1961, Baltimore passed a program to remove lead from homes, controversy developed over whether the cost of removal was excessive.[43] For many years afterwards, laws on lead in housing have remained largely regional and scarcely effective.

In 1992, Congress passed the Residential Lead-Base Paint Hazard Reduction Act (Title X), legislation that required sellers to tell buyers of lead hazards prior to purchase. Still, only an estimated 9.1 percent of pre-1960 homes have been tested for lead.[42]

Lead removal legislation can be found in Massachusetts, where the Massachusetts Lead Law requires the institution of strict control measures or removal of lead paint from all homes built before 1978 when children younger than six move in.[44] The city of Boston also offers grants and low-interest loans to assist landlords with paying for lead removal, but many landlords fear the cost, which can exceed annual rent for some tenants.

As a result, discrimination against families with children can prevent families from finding safe housing for their children. Newer, lead-free apartments are often too expensive for poor families. Many parents have no choice but to live in homeless shelters or put their children at risk for permanent brain damage.

CONSEQUENCE #4: HOMELESSNESS

__Carrie__, an 8 year old girl, came to the medical care van for homeless people and asked to be alone with a doctor. She was covered in a rash, most likely from not bathing for weeks because the building where she and her parents were "squatting" had no running water. Her teeth were rotting because one of her main source of calories were the sugar packets and jams her parents filched from a restaurant in Harvard Square. She did not have soap or shampoo, a toothbrush or toothpaste, a doctor or dentist to follow-up with and she hadn't been to school in weeks.

Carrie's story is all too typical of the overwhelming problems homeless children face every day. The General Accounting Office estimated in 1989 that 41,000 to 107,000 children are literally homeless on any given day, with 39,000 to 296,000 more in "doubled up" or shared housing.[4]

While most of the information on children and the effects of homelessness are related to shelters because they are the only accessible population, many others live in cars or "doubled up" with friends or family. Some studies have suggested that residential instability, either from homelessness or other housing problems put these children at twice the risk to becoming homeless adults, perpetuating the cycle. [45]

While nearly 70% of homeless families in shelters are only there for 3 months or less, one in four families are homeless from 3 months to 3 years.[46] While long periods of homelessness can be more detrimental to a child's health, any length of homelessness can be associated with many short term and long term effects:

Infections

Children who are homeless are at significantly increased risk of infections compared other children, even housed poor children.[47] In one study, homeless children had a 42% chance of having an upper respiratory infection over a given period of time, compared to 22% for the general population of children.[48] Multiple respiratory and ear infections can lead to hearing problems, language delays and even poor school performance. Other contagious infections, such as diarrhea, have been shown to be more 5 times more frequent in children in shelters than compared to other children in the same area.[47]

Homeless children can even contract more serious infections like tuberculosis, a lung infection which requires months of expensive medicines and can affect the entire body if it goes untreated. In addition, children in shelters have high rates of such breathing problems as asthma.[47]

Nutrition

Homeless families often want for food. One study documented that 21% of children in shelters felt they did not get enough to eat in the last 4 days or more of every month because of lack of money.[47]

This lack of food can have long term effects, especially iron deficiency anemia, a disease that is associated with behavioral problems and

decreased cognitive development. Homeless children are 7 times more likely to be iron deficient than housed children.[49]

Psychological Issues

Perhaps the most disturbing of the effects homelessness has on children are the delays in their development, like walking, talking and playing. One study demonstrated that only 5% of children entering shelters had a developmental delay, requiring specialist evaluation, similar to 7% of poor, housed children.[50] However, in one study, half of children in homeless shelters had one or more developmental delays.[51]

Similarly, 45% of school age children in homeless shelters were found to need special education evaluation, yet only 22% actually received this important testing or placement.[52] Moreover, about half of children in shelters missed one week of school in 3 months and 20% missed over 3 weeks in three months, significantly more than poor housed children.[47] Children who change shelters often must change schools too, disrupting continuity in learning.

The psychological health of children can also be devastated by homelessness. Half of all children in shelters show signs of anxiety and depression. [53] When compared to poor, housed children, homeless children show significant behavioral disturbances, like tantrums and aggressive behavior.[47]

Lack of Routine Health Care

Since the very word homelessness implies transiency, it makes sense that many homeless children lack a regular place for health care. This has many results, the most frightening of which is lack of immunizations against such deadly diseases such as polio, whooping cough, and meningitis. Children in shelters have shown as high as a 70% rate of delay in immunizations in comparison to 22% among poor, housed children.[49]

> ***Judy**, a 1 year old girl, was forced into a homeless shelter because her grandmother's house had lead paint. She was admitted to the hospital several times in her first year for respiratory infections. While her mother was committed to follow-up with Judy's regular doctor, she needed to travel over 90 minutes from the shelter to get to her doctor's office.*

Many homeless families are unable to visit or even identify a regular clinic. In some homeless shelters, over 44% of families use the ER or clinics in hospitals as their only care.[54]

Injuries

One of the preventable problems in children are injuries. In one survey of homeless mothers, 20% responded that their child needed to be seen at an ER for an injury or fall.[54] Six percent of children reported either a fracture or a fall (being "knocked unconscious") and 14% report having a burn serious enough for a scar to form. These injuries put homeless children at needless endangerment of life and limb.

CONSEQUENCE #5: MALNUTRITION

***Ruby's** mother brought her to Children's Hospital Boston this spring because she was unable to walk at almost two years of age. Doctors noticed chipped teeth and unusual bumps near her joints. After extensive evaluation, Ruby was diagnosed with severe rickets (also known as Vitamin D deficiency), a devastating and rare bone disease that is prevented by simple exposure to sunlight. However, Ruby had spent the first eight months of her life inside a homeless shelter, her mother unwilling to leave for fear of violence.*

While rickets may be a relatively rare event,[55] Ruby's story illustrates a common connection between inadequate housing and childhood malnutrition. Even when children receive adequate sunlight, they frequently do not get enough food when their parents must spend a large proportion of their income on rent.

Evidence for this tradeoff comes from a 1992 government survey, which demonstrated that families receiving rent assistance paid approximately 30 percent of their income for rent.[56] However, poor families who were eligible but not receiving housing assistance (such as those on a waiting list) paid over 40 percent for rent—and spent less of their income on food.

Frighteningly, additional evidence reveals that families receiving welfare benefits in cities like Boston can easily spend more than 75% of their income for rent.[57]

The tradeoff between food and housing expenses is particularly acute during wintertime months. In a recent study, researchers at Boston City Hospital analyzed data on over 11,000 children between 6 months and 2 years of age and found that growth was decreased in the three months following the coldest months of the year.

The researchers also found that "families who were without heat or were threatened with utility turnoff in the previous winter were twice as likely as other families to report that their children were hungry or at risk for hunger."[58]

Even among poor families, housing subsidies may prevent malnutrition by allowing families to spend more of their small income for food. A 1995 study compared the rate of malnutrition among poor children whose families already received subsidized housing with the rate among children of families on the waiting list.[59]

The results were dramatic: Almost *one in five* children on the housing waiting list had indicators of stunted growth, compared to about *one in thirty* children who lived in subsidized housing. The authors noted that "the biologic consequences of poor growth for children may include a negative influence on future school performance."

Subsidized housing has also been linked to a lower rate of iron-deficiency anemia—a disorder that is associated with behavioral problems and decreased cognitive development. Children who do not receive housing assistance are 50% more likely to be iron deficient than children of families receiving housing subsidy.[60]

III. Double Trouble: Chronic Disease and Inadequate Housing

Martin is an active 13 year old boy who had been controlling his severe cystic fibrosis—a disease which causes serious lung disease and malnutrition—with only yearly visits to the hospital. But his mother's salary could not cover their rising rent, and their landlord threatened eviction. Over the next 6 weeks, worrying constantly about where he would live, Martin was hospitalized twice for severe pneumonia and lost over 10 pounds.

Inadequate housing threatens the health of all children, but it only significantly harms the health of some. When children have a chronic disease, they live in a precarious balance between sickness and health.

All of the previously described consequences of poor housing even more dramatically affect children with chronic disease.

Lionel, an active, nintendo-loving seven-year-old boy, was diagnosed by doctors at Boston Medical Center last month with a life-threatening cancer of the blood. His two-year treatment regimen at the Dana-Farber Cancer Institute will devastate his immune system, leading doctors to provide free dental care now just to reduce the chance of a mouth infection later. Yet doctors cannot alter one of Lionel's most dangerous risks for infection: the rodents that infest his cramped unsubsidized apartment.

- **Respiratory disease.** In similar housing conditions, preterm infants were found to be more susceptible to the ill effects of overcrowding—such as pneumonia—than full term babies.[61]
- **Infection.** What for healthy children may be an everyday infection can threaten the life of a child with a compromised immune system.
- **Financial catastrophe.** Many parents lose income while taking care of a chronically ill child—not only because of the expense of treatment, but also in terms of work time lost. Combined with the financial stress of unsubsidized housing, this burden can prove overwhelming.

A survivor of multiple intestinal surgeries, Julia remained a playful four-year-old despite relying on a machine connected to one of her veins for all her nutrition. But one day this food supply was cut off: Julia's mother could not afford to pay for her electricity and the high cost of her unsubsidized rent.

- **Lead poisoning.** Chronically ill children suffer more severe lead poisoning than otherwise healthy children.[62]

For many children, chronic disease is a nightmare of hospitalizations, difficult medical treatments, and intermittent schooling. When housing conditions are not adequate, this nightmare can become horrific.

IV. Statistics: The Impact of Inadequate Housing on Child Health

After reviewing the individual stories received by our project as well as dozens of articles from the medical literature, we estimated the cumulative impact of inadequate housing on child health in the United States. Unfortunately, because of the lack of large data sets, we have had to extrapolate from smaller studies in some cases. Using data from different sources, with methodology presented in the footnotes, we present our conclusions below. At every opportunity, we have tried to be conservative in our estimates.

Estimates of the Cumulative Impact of Inadequate Housing on Child Health

Asthma:	
• Hospitalizations per year for asthma among inner-city children ages 4-9 attributable to cockroach infestation:[63]	17,849
Injuries	
• Burns to children from exposed radiators per year[64]	1,485
• Child deaths per year due to fires potentially attributable to electrical and heating problems in poor households[65]	187
Lead Poisoning	
• Approximate number of IQ points that will be lost to lead poisoning among children ages 1-5 in the United States.[66]	2.5 million
Malnutrition	
• Children ages 0 to 3 years with stunted growth attributable to their families being on the waiting list for housing assistance[67]	21,392
• Children ages 6 months to 6 years with iron deficiency anemia attributable to their families not receiving housing assistance[68]	120,202
Homelessness	
• Children homeless each night, with increased risk of violence, psychological disturbances, infections, poor vaccination, poor school performance[69]	41,000 to 107,000

V. Recommendations for Action

General Recommendations

- Quality housing should be considered a child health issue. As such, affordable and adequate housing through public housing units and certificates should be guaranteed to poor children and their families. *The Section 8 housing voucher program should be significantly expanded to allow parents to find safe and affordable housing for their families.*
- *Vouchers should be targeted to the most poor families, who have the most to lose from inadequate housing and the most to gain from control over their environment.*
- Proposed changes in housing developments and programs should be evaluated in part based on their likely effects on children's health. *Contracts should consider not just cost but the implications of building materials for asthma, injuries, and lead poisoning.*
- Tenants should have full access to legal aid to be able to obtain what is often their legal right—housing that is free of lead, free of infestation, and free of causes of severe asthma and allergies. *Federal, state and local governments should fund legal aid programs to help parents fight for their legal right to a safe home for their children.*
- Public housing developments should take the lead by assessing the health needs of their families around such areas as asthma prevention, injuries and lead poisoning. *Health care institutions, which often have significant resources, should collaborate with public housing organizations to identify the health needs of their families.*
- Housing authorities should be more responsive to children whose health is compromised by poor housing—a "fast track" approach to qualifying for public housing assistance. *Each housing authority should have a medical review board to prioritize qualified families.*

Asthma

- Government agencies that inspect housing for adequacy should also be able to assess asthma risk factors and respond quickly when the child's health is threatened. *An asthma intervention team should be developed by cities and hospitals to quickly reduce the risks of very hazardous living situations.*

- Medical insurance should pay for asthma–related cleanup of inadequate housing. *At a minimum, all insurance programs should cover bed and sheet covers, and periodic anti-pest, anti-mold, and dust-mite treatment.*

Lead Poisoning

- Significant public financing is needed to insure that homes and apartments with young children are made safe quickly and efficiently. *It is unacceptable, as has been recently reported, that poor families have been ordered to spend thousands of dollars they do not have to keep their children from being poisoned.*

Injuries and Violence

- Medical insurance should pay for radiator covers, fire alarms, and window guards. *Landlords who maintain apartments with risk to children should be prosecuted to the full extent of the law.*

Malnutrition

- Fuel assistance during winter months should be guaranteed to poor families to reduce the tradeoff between "heat" and "eat."
- Food stamp allotment should be increased during winter months in cold areas.

Homelessness

- Homelessness is not compatible with a safe and nurturing childhood. The United States should endeavor to end this threat to children by significantly expanding housing access. All homeless families should immediately qualify for housing assistance with the goal of placement within one month.
- Homeless shelters for families must meet basic standards for the protection of child physical and mental health: privacy, quiet for homework and sleep, food to meet growing nutritional needs, and protection from environmental hazards.
- All states and localities with homeless populations should develop a program of intensive case management by nurses of homeless children. *This case management should include a medical passport for each child, developmental assessment, advocacy for housing, and advocacy for continuity in school.*

VI. NOTES

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Appendix: Stories submitted to the Doc4Kids Project via email, fax, U.S. mail

(Stories have been edited only for clarity and brevity, and all names have been changed)

Boston ASTHMA — Viola is a 3 year old girl who suffers from asthma and lives in an apartment with a roach problem. Fortunately, the family does not have a rodent problem. Also the child has lead poisoning and the mother was not entirely sure that the home has been deleaded.

Boston ASTHMA — **Ashley (15) and Ron (13) are siblings with severe allergies. Ashley has severe asthma with frequent hospital admissions. Ron asthma is milder. Both are known to be allergic to roaches, dust mites and molds. Since birth they lived in the same public housing apartment. Roach infestation is severe. When I pulled up their shirts in clinic to listen to their chests on one occasion, roaches fell from the clothing and scooted across the table. The apartment's ceiling dripped water and grew mold. The manager painted over the mold, but it quickly grew back. When Ron had to return from a summer visit with his grandmother, he cried at the prospect of going back. Water dripped directly on his bed, so he had to sleep on the sofa. Finally, after a hospital attorney became involved, the family moved to a clean and safe apartment.**

Boston ASTHMA — Lionel has accumulated 5 hospitalizations and 5 emergency room visits for asthma in the last 9 months. His roof at home leaks into the living areas. Mouse and roach infestation is a problem. Allergy testing showed he is allergic to dust mites and roaches. Rats and mice were not tested. He is allergic to mice as well. Mom is afraid to do more than ask the landlord for repairs. Nothing has happened in response to her requests. Since mom doesn't have the cash for a new apartment deposit, she feels trapped.

Boston ASTHMA — Tyrick is a 1 year old boy whose asthma is made worse by a roach problem and lack of cleanliness throughout the home. He hasn't been tested yet for lead, but there is peeling paint at home, which is not believed to be deleaded.

Boston ASTHMA — Andy is an 11 year old boy with asthma for six months. The onset of his disease dates back to having moved to a safe neighborhood from one riddled with violence. Unfortunately, his new apartment is old with wall to wall carpet. He is now escalating medical treatments to control his disease.

Boston ASTHMA — Lawton is an 11-year boy who has been admitted to the hospital 5 times over the last 9 months for asthma. His roof at home leaks water into the living area, and he is allergic to mold, dust mites and cockroaches. Their landlord has ignored requests to repair the apartment, and his mother feels "trapped" because she cannot afford to move.

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Talamo RC. Prevalence of asthma and health service utilization of asthmatic children in an inner city. *J Allergy Clinic Immunol* 1982;70:367-372.] X 36% cockroach sensitivity among urban children with asthma X 0.26 extra hospitalizations/year among cockroach sensitive 4-9 year olds with asthma. [Rosenstreich DL, Eggleston P, Kattan M, et al. The role of cockroach allergy and exposure to cockroach allergen in causing morbilidty among inner-city children with asthma. *New England Journal of Medicine* 1997;336:1356-63.] = 17,849 hospitalizations/year attributable to cockroach infestation among poor U.S. children ages 4-9.

64. Estimated from 1881 children seen in emergency room for radiator burns in 1993 X 79% rate of missing covers in one investigation = 1,485 burns. [source: CDC. Home Radiator Burns Among Inner-City Children--Chicago, September 1991–April 1994. *MMWR* 1996;45:814-815.]

65. Estimated from approximately 5000 deaths/year from fires [Baker SP, O'Neill B, Ginsburg MJ, et al: The Injury Fact Book, ed 2. Oxford, Oxford University Press, 1992:161-167.] X approximately 25% of deaths among children [Injury Fact Book and Mierley MC, Baker SP. Fatal House Fires in an Urban Population. *JAMA* 1983;249: 1466-68] X 15% excess rate of fatal fires from electrical/heating equipment in poor households [Mierley MC, Baker SP. Fatal House Fires in an Urban Population. *JAMA* 1983;249: 1466-68] = 187 deaths/year of children from faulty electrical/heating equipment.

66. Estimated from 1 million children ages 1-5 with lead level > 10 [from MMWR. Update: Blood Lead Levels -- United States, 1991-1994. 47(1997): 141-145.] X 2.5 point IQ loss for each 10 points of lead level. [Rosen JF. Adverse health effects of lead at low exposure levels: trends in the management of childhood lead poisoning. *Toxicology* 1995;97:11-17.] While not 100% of lead poisoning in children is due to housing, our estimate is conservative because (1) some experts estimate more significant cognitive deficits from lead poisoning, and (2) many individual children have levels far higher than 10.

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50% of poor renter households with children [Leonard PA, Dolbeare CN, Lazere EB. A Place to Call Home: The Crisis in Housing for the Poor. Center on Budget and Policy Priorities. Washington, DC, 1992.] X 31% with child between 6 months and six years (linear assumption) X 11% excess rate of iron deficiency among children 6 months to 6 years of age in poor families not receiving housing subsidies compared to those receiving housing subsidies. [Meyers A, Rubin D, Napoleone M, Nichols K. Public housing subsidies may improve poor children's nutrition. *American Journal of Public Health* 1993; 83:115.] = 120,202 children with iron deficient anema attributable to families not receiving housing subsidies.

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Boston ASTHMA

Missy is an 11 month old baby whose mother was beaten by the father and then moved out of her apartment. She moved in with a sister and her mother, both of whom smoke and have a big dog (mean, too). The baby is already allergic by skin test to roaches, mites, dogs and cats. The mom can't find new housing that she can afford and is depressed that the baby's health is adversely affected by the environment she is trapped in. This beautiful baby could be the project's poster child. She has had one hospitalization, several emergency visits and several courses of steroids. The baby and her mom share one room, the aunt and dog another. Today she spoke with a social worker, but she has already looked for other housing without success.

Boston ASTHMA

I follow Mark and Arty, ages 7 and 3, in my clinic at PHA-Children's Hospital. They are both asthmatics requiring daily nebulized cromolyn and albuterol. These children and their mother who in fact is expecting a third child any time now, have been sharing a 2-bedroom apartment with another family given their dire financial situation. They used to live with their maternal grandmother but because of overcrowding, were forced to settle with their current housing arrangement. These brothers have time and again, presented with upper respiratory tract infections precipitating asthma exacerbations presumably due to the overcrowding and congested living arrangements. I had written a letter in their behalf upon the mother's request to hopefully secure an approval for a better, safe and affordable housing from the Boston Housing Authority.

Boston ASTHMA

Mary is a young girl who just turned one year of age and suffers from severe asthma. The parent of this child had been evicted from her apartment when a companion had exhibited violent behavior. Since then the parent has not been able to find another apartment. She, the baby, and an older child stay in one room in a relative's apartment, along with several other adults who smoke and 2 Rotweiler dogs.

Despite faithful adherence to a complicated, preventative treatment plan (including bronchodilator therapy, nebulizer machine, inhaled and oral corticosteroids), the baby remains symptomatic with frequent cough, wheeze, and labored breathing. She has required emergency care on many occasions for these respiratory symptoms. Allergy skin testing has shown that already at her young age, Mary is allergic to components of house dust, as well as to dogs.

It is medically indicated that Mary and her mother be assigned to housing which has a bedroom which can be kept free of dust, tobacco smoke, dog dander, cockroaches, and rodents. The living unit must be free of infestation and free of dampness or mildew, which are sources of allergen. The unit should be sufficiently large to avoid crowding since crowding leads to the spread of respiratory infection, which brings on asthma symptoms.

Boston ASTHMA

Takeisha was an adorable African-American 5-year-old who was admitted to Children's Hospital late one night in the dead of winter with a severe asthma exacerbation. In the bed next to her was her sister Taquanna, two years older but with asthma as well. I asked her mother whether there was anyone else at home, and she said a third daughter was getting the "breathing treatments" at home each day because her asthma was worsening too.

I became interested in whether there was something wrong at home. The family lived in a new public housing project. According to their mother, the apartment was newly renovated, and she had no complaints except that the heat had been broken for about a week. "The heat was broken?" I asked. Cold air is notoriously a trigger for asthma exacerbations, and every family needs heat during a Boston winter.

With the mother's permission, I called the manager overseeing the apartment. While he didn't think anything was actually wrong, he could send someone out if the mother could meet him at home in 30 minutes. The mother rushed out the door to jump on the bus.

The next day, the mother reported what had happened: the technician found half of the heating ducts broken. The manager had immediately set up temporary space-heating units and promised a full repair the following day, which happened as scheduled. The mother promised me she would call if anything broke again...but she said she didn't have any interest in moving as long as the manager listened when there were problems.

Boston ASTHMA

During one of my ward team months at Children's, I took care of a child with asthma. He developed an exacerbation, and was unable to make use of his home nebulizer machine because it had become home to some of the cockroaches that had infested his apartment. It's hard to say whether his wheezing would have gotten better or worse from using the machine with bugs in it!

Boston ASTHMA

I admitted a 4 year old girl with asthma last week. Their apartment in the projects apparently has quite a mold and mildew problem which aggravates her lung disease. Mom has applied for housing relocation and ironically was scheduled to meet with the housing office on the day her daughter was admitted to the hospital. When the girl has flares in her asthma she is often sent to live with her elderly grandparents whose apartment is in much better shape than her own. This makes things harder on her family but her recovery is faster if she stays in this cleaner environment.

Boston ASTHMA

7 year old Central-American girl hospitalized with asthma, mother reports no heat in apt. She has gotten letter saying she will lose her welfare benefits. She reports use of (dangerous) portable heaters. Seen by Social worker.

Boston ASTHMA

5 year old boy with asthma admitted in respiratory distress. Mother reports there are so many cockroaches in her apartment that she keeps everything—including the phone—wrapped in plastic.

Boston ASTHMA

This is a story told to me by a resident of public housing during a training session to prepare housing residents to assess housing units for possible asthma and allergy triggers.

A mother of a teenage girl with asthma sought advice from her neighbor. The teenager is having difficulty going to and from the family's 12th floor apartment in a high rise unit owned by Boston Housing Authority. When she takes the elevator, fumes (which may be dust or mold or other allergen) come out of the elevator's overhead vent and make the girl cough and wheeze. The elevator stops frequently, sometimes in between floors, trapping those inside. This causes the girl even more discomfort, anxiety and breathing problems. To go to and from school each day she has to decide whether to climb the 12 flights of stairs instead of taking the elevator. However, her asthma symptoms get worse with this activity, and she is concerned about individuals and small groups who sometimes lurk in the stairwell. The family has applied for a transfer to another project. They expect that a transfer will take years.

Boston ASTHMA

Samantha is a 10 year old child with allergies and asthma. Her medical problems began 4 years ago when she moved into a first floor public housing unit. The building is infested with cockroaches and mice despite regular use of insecticides.

The family is bothered by the uncontrollable heat in the unit, which is directly above the boiler room. The temperature is always above 85 degrees, even throughout the winter. The surface of the floor is even hotter; the family must wear shoes at all time to avoid burning the soles of their feet. The dry heat causes discomfort and further breathing distress.

To correct the problems in the unit which are affecting this child: (heating, plumbing, rodent and cockroach infestation), the basement area must be accessed. The boiler room is infested with rodents. Inspectors and plumbing contractors refuse to enter the basement area. No repairs are being done. No fumigation is done.

This family has applied for a transfer to another unit. The parent has spoken to task force members and management, but has received no reply. She expresses concern that if she actively registers complaints and seeks solutions to problems, she will be "labeled" as a problem and any future needs will be ignored.

Boston ASTHMA

Larry is a 13 month old with reactive airways disease [asthma] who I met while cross-covering in the hospital wards. His mother says she lives in low-income housing with significant dust and mice. She asks to get the apartment inspected because she thinks these allergens are contributing to her son's severe course at his young age.

Boston	ASTHMA	**My patient is an 8 year old boy with severe exercise induced asthma. He had multiple hospital admissions. He lived too far from school or the school bus stop and the Boston Public Schools refused to send a bus all the way to his home. Using housing assistance, he was able to find an apartment closer to the school so that he only had to walk a couple of blocks each day.**
Boston	ASTHMA	12 year old girl cleaning heating vents in her apartment –> caused severe asthma and she was admitted to hospital. 2 days later her brother was seen for the same problem in the emergency department.
Boston	ASTHMA	**Franz is a 9 year old with asthma who lives with his mother and 3 siblings in a 2-floor townhouse style apartment which was formerly a public housing development. Eight years ago the development was completely renovated. The units are now mixed income, privately managed. The family has lived in this unit for about 3 years.** **Franz's asthma and allergies have been difficult to control. He needs to take daily medicines for prevention and also requires medicines to treat frequent wheezing. He also requires medicines to treat the constant runny and congested nose which make his breathing problems worse.** **We found out from allergy skin testing that Franz is allergic to dust mites (and pollens). Franz's entire home has wall-to-wall carpeting, which was very difficult to clean. We recommended that the carpeting be removed and requested that the housing management replace the carpeting in the unit with washable flooring.** **After several discussions between our asthma clinic and housing management, the carpeting in Franz's unit was removed and replaced with washable flooring. The child has had minimal problems with allergies and asthma since this was done.** **We believe that this family is very fortunate to have this positive outcome.**
Boston	ASTHMA	Today the help desk helped one of my patients who was having asthma exacerbations due to incense that was being burned to hide the smell of rotting rodents that had been exterminated several weeks before. The family is living in marginal housing - landlord is unresponsive. Clearly quality housing would help this family...
N.H.	ASTHMA	Josh is a 15 year old with sleep apnea and moderate-to-severe asthma. The only heat in his New Hampshire home is a wood burning stove which significantly exacerbates his asthma.

N.Y.	ASTHMA	I have two patients we'll call Jose and Maria, ages five and three who have recently developed bronchospasm requiring visits to my office for broncodilator therapy. There is a negative family history of asthma in the family. There is no pet exposure and no clear history of allergies have been noted. Mother is aware of keeping the house free of dust and, as much as she can, of cockroaches. There is however a large hole in the wall of her living room connecting her apartment to that of her next door neighbor does smoke. She notes free flowing cigarette smoke for most of the day coming into her apartment and we both feel after nine months of this type of exposure, the children are now developing reactive airway disease [asthma] as a result.
Seattle	ASTHMA	I have a 6 year old patient who presented with severe asthma (no previous history; no previous symptoms recognized by mom) after moving into a large multifamily dwelling. Public Health nurse described mold on walls, dripping faucets, one small window in the whole place, roach infestation, mom and 3 kids slept in one room on a mattress on the floor. When I visited, I was struck by the smell of old cigarette smoke in the hallways (I could hardly breathe and I don't have asthma) and I was also afraid as I was there alone and the hallways were dark. We did what we could to educate mom re: modifications of their room and started cromolyn, and then inhaled steroids; however, the boy continued to have exacerbations. The nurse and I have written numerous letters to Seattle Housing Authority supporting mom's efforts for better housing given the boy's asthma; they are still at the bottom of a long list.
San Francisco	CHRONIC DISEASE	I don't think a set of stories would be complete without Billy, a Cambodian boy with Apert's syndrome and a tracheostomy who lives in a single room with around eight siblings. His home care nurse told me she has suctioned a cockroach out of his tracheostomy collar.
Boston	CHRONIC DISEASE	Martin is a 13 year old boy with moderate cystic fibrosis, whose family had lived for the previous six weeks under the threat of eviction. During this time, Martin had been hospitalized twice and had a 10 pound weight loss. Prior to these 2 hospitalizations he had been admitted for cystic fibrosis treatment yearly. The patient lived with his mother and younger brother. He was quite worried about his mother and reported that the rent needed was too much for the family to afford and often this left them without enough food. He also stated he felt too sad to eat. In addition he knew his mother was worried about the family moving into a shelter because of Martin's underlying lung disease and fear of infection from others in the shelter. Clearly the stress of this situation affected this patient's health both in terms of his nutrition and in terms of his lung disease .. At discharge the patient's family was going to court to fight the eviction but still had no way to make the rent. The family was also made aware of food pantries in the area. Unfortunately, because Martin's mother worked, she made too much to qualify for housing assistance.

Boston	CHRONIC ILLNESS	One of my patients is a 4 year old girl whose family spending so much for rent that electricity was shut off. This became a life threatening problem because she is dependent upon intravenous feedings for nutrition. I had to immediately contact the power company to insist that service return.
Boston	CHRONIC ILLNESS	Jared, a 2 year old with leukemia, currently receiving chemotherapy, lives presently at a shelter with his mother. For the past three months his mother is searching for housing unsuccessfully. Due to neglect issues that Jared's mother has with the father, Jared and his mother became homeless. Jared's mother has been given no medical priority on any housing list based on Jared's immune-compromised conditions. The shelter is a family based one and an average of 15 children reside in close quarters with Jared. Three weeks ago, Jared was rushed by ambulance to the hospital with a high fever. Greater Boston Legal Services when first contacted said there was nothing they could do in order to advocate for Jared and his mother. They have recently took renewed interest in the case and are writing letters of support for Jared and his mother. Hopefully, Jared's mother will secure an apartment, however she will not have been successful in keeping her child away from a dangerous health-risk situation.
Boston	CHRONIC ILLNESS	Lionel, an active, nintendo-loving seven-year-old boy, was diagnosed by doctors at Boston Medical Center last month with a life-threatening cancer of the blood. His two-year treatment regimen at the Dana-Farber Cancer Institute will devastate his immune system, leading doctors to provide free dental care now just to reduce the chance of a mouth infection later. Yet doctors cannot alter one of Lionel's most dangerous risks for infection: the rodents that infest his cramped unsubsidized apartment.

Boston HOMELESS

When I was a resident at Children's Hospital in Boston, I volunteered for the Bridge Van, a mobile medical van which cruises Boston and Cambridge and offers free medical care for anyone who drops in. Basically it's designed to offer care for homeless teenagers living in the area, but I saw a fair number of older people as well.

I saw a few younger kids too; in fact, the younger kids were the most troubling patients by far. I stopped working on the van because of the disturbing ethical and practical problems of treating children in this manner.

One little girl came on with her parents. Carrie was 8 or 9, and she and her parents were "squatters" in a dilapidated building in Cambridge. All three of them dropped in for the free sandwiches and hot chocolate we were offering. Carrie asked if she could see the doctor alone. My heart dropped: what if she had bruises? What if she wanted to talk to me because she felt unsafe, or because she was being abused? Fortunately, she just wanted to have a little privacy. She had a rash which could have been eczema, could have been scabies. Her clothes were dirty and she was growing out of them. Her hair was long and not too clean. I gave her some little soaps and shampoos that we had around. She wanted to show me her rash and her teeth. She seemed happy and well cared for, until I looked at her teeth. They were rotting and filthy. She didn't have a toothbrush. I gave her one. She didn't have toothpaste. I gave her some. I asked her whether she ate a lot of sweets and she told me that her parents filched sugar packets and jam from the Au Bon Pain in Harvard Square, and that there wasn't any running water where they lived. She didn't have a regular doctor, missed a huge amount of school, and I had no idea what I would have done if she actually had been acutely sick.

I didn't know her immunization history, and her parents were probably not using their real names (the majority of people actually use pseudonyms on the Van). I didn't know where she lived. Followup care was virtually impossible. I referred her to a dentist but who knows if she was able to keep the appointment?

Confidentiality, one of the hallmarks of good medical care, works against the homeless. In order to maintain their privacy, many homeless people use false names when they deal with "officials." The Bridge Van staff also promise their clients that they will keep EVERYTHING in strictest confidence. So if, for example, the mother of this 8 year old girl had HIV, the staff would absolutely NOT have told me, even if they knew it to be true. My assessment of a common complaint (rash, cough, etc) would change drastically if I knew of an underlying immunodeficiency.

Continuity of care is also a rarity among the homeless. Say I wanted Carrie to use hydrocortisone on the rash, and check back with me to see if it was working. Assuming she uses the cream correctly, how is her family supposed to see me again? I only volunteered once every few weeks. And what if they never showed up for follow-up? This was a particularly disturbing problem for the teens who had positive tuberculosis tests.

In the end, I left the Bridge Van program. In large part it was out of frustration with the "confidentiality" policy. It made me very uncomfortable that non-medical staff would knowingly conceal important medical info about the clients. I'm still not sure what the best policy regarding privacy is; I remain convinced that either way, the homeless population suffers. Even when the care is well-meaning and thorough, it is far from adequate.

Boston HOMELESS

I met Ana a few days after she gave birth to a pudgy little baby with Down's syndrome. Rosalita was lively and cute, but she had intermittent trouble breathing and her white blood cell count was off the charts. We transferred Rosalita to the intensive care unit and worried about potential heart ailments and the possibility of leukemia.

Ana, however, was most concerned about her housing situation. A victim of severe domestic abuse that has left her with a chronic seizure disorder, Ana had been living in and out of shelters for several years. Her boyfriend was in jail, and she could not count on her family for support. Afraid to raise her child in a shelter, she applied for and received section 8. Rosalita recovered and lived with her mother with various relatives and friends. Then one day she paged me at the hospital to say that she had succeeded in obtaining an apartment through section 8.

Visiting nurses and early intervention specialists reported that Ana and Rosalita thrived in their new apartment. Despite her increased risk for illness, Rosalita survived the wintertime with no hospital admissions and just the occasional minor respiratory infection. Ana is currently back at school.

Boston HOMELESS

I met Angelica in my pediatrics clinic—she was a three year old girl of average height but with the weight of an average 7-year-old. Obesity in children can impair growth and lead to other medical and social problems; I therefore asked whether Angelica had opportunities to exercise.

At my question, her mother Maria began to cry. A legal immigrant from the Dominican Republic, Maria's boyfriend left her after she became pregnant with her third child. Without a job and having to care for two children, Julia moved in with friends of her family. Maria and her children shared a tiny bedroom in a larger apartment, but because of fears for safety and a sense they were not wanted, Maria never let three-year-old Angelica outside of the bedroom to play.

As a result, Angelica had no friends her age, her behavior became more demanding and infantile, and her weight increased. I wrote a letter and called for housing assistance, but to no avail.

Just before Angelica's little brother was born, Maria moved her family into a homeless shelter. There, health-related problems increased. Due to the number of children living in the shelter and transmission of cold viruses, the baby suffered several respiratory illnesses in his first three months of life, one requiring hospitalization. Angelica was picked on by other children living at the shelter, so that her mother never left her alone with them.

The nine-year-old Jose became more quiet and withdrawn, also spending little time with children his age. Maria hopes to be able to go to back to school. However, after 6 months, her family remains on the waiting list for housing assistance.

Boston	HOMELESS	Mother and child has been living in Shelter for abusive relationship with Dad. Child has been sick off/on for months and admitted for gastroenteritis. Just qualified for Section 8 housing and have started to look for a more permanent place to live.
Boston	HOMELESS	Kurt is a 12 month old baby who lives with his mom and his great-grandparents in a senior-citizen high-rise housing complex, in a 2 BR unit. Mom has been on the list for section 8 housing for at least as long as Kurt has been alive, but hasn't received housing and can't obtain housing any other way as of yet. There is no place for him to play, it is a small apt, and both Kurt and his mom are not technically allowed to live in this complex and face eviction if discovered.
Boston	HOMELESS	Sometime in November 1991, I was assigned the case of Edith, a Dominican woman who, at that time, was pregnant and basically living in an abandoned car. Edith gave birth to a son in 1991, and she and a friend of hers began living in an apartment on Talbot Street in Dorchester—the apartment was left to Edith's friend by a boyfriend. In May 1992, the apartment building on Talbot Avenue was condemned, so Edith had nowhere to go, as she had no relatives in the Boston area. For three months, Edith wandered from acquaintance to acquaintance, changing sleeping places every couple of nights. In August 1992, she received housing assistance from Boston Housing Authority. She is still living in public housing, which has been very positive for her. At present, she is employed, her son successfully completed Head Start and is doing well in public school. I would like to point out that Edith, when she was homeless, suffered from severe depression, often forgetting to eat. Had she not received housing assistance as soon as she did, Edith would have probably lost her child to the Department of Social Services due to the severe depression.
Boston	HOMELESS	In February 1992, I began work with Sonja, who at the time was a 24 year old pregnant woman with three boys all under the age of 10. Sonja was living in a house that had been abandoned by the landlord and foreclosed by a bank, as a squatter. The other people living in this house were squatters as well and did not have access to the basement, where the gas meters and boilers were located. There was lead in the house, as evidenced by the children's lead levels. A City Life housing advocate got involved with Ivelisse after water was shut off at the house, located in Dorchester. With the assistance of City Life, Ivelisse was accepted into public housing and is currently living with her children and new spouse in a Roslindale/Hyde Park housing development. The children are doing well in school at the present time.

Boston	HOMELESS	I saw a 4 year old boy the in ER with a febrile illness. The mother very openly explained to me that she had been living in a shelter with her two small children for 1 and 1/2 years because she was a victim of domestic abuse. She was awaiting her section 8 housing. A few days prior to my meeting with her, she told me she was attacked by another woman who lived in the shelter. She thinks the woman was jealous because she had become friendly with a mutual friend who also lived in the shelter. She was walking across the street with her two small children (in broad day light) when this woman struck her across the back with a 2 x 4 in an "attempt to kill her". The mother had a very large hematoma across her back but was otherwise well (physically). Since the incident the children have been very fearful, clingy and "sad" (they have been referred to the "Witness to Violence Program"). The day of presentation the child developed a fever (103) and the mother called an ambulance to transport them to the hospital. She had no alternative way to bring him to the ER (3 buses with a febrile child did not appeal to her). Because of the domestic violence, she states she is very isolated and has no family or friends who could help her. She is very fearful about the effect of this act of violence (and previous domestic abuse) on her children as well as fearful this woman will try to attack her or her children when she was released from prison (which was to be very soon).
Boston	HOMELESS	**Three small girls presented to our clinic. All were behind on their vaccines. Their mother had fled to a homeless shelter several months earlier because of an abusive boyfriend and no alternatives. Two of the three girls had significant language delay as a result of this traumatizing experience.**
Boston	HOMELESS	Judy, a 1 year old girl, was forced into a homeless shelter because her grandmother's house had lead paint. She was admitted to the hospital several times in her first year for respiratory infections. While her mother was committed to follow-up with Judy's regular doctor, she needed to travel over 90 minutes from the shelter to get to her doctor's office.
Philadelphia	HOMELESS	Child with asthma who repeatedly gets hospitalized due to the numerous allergic triggers of life in a homeless shelter.
Philadelphia	HOMELESS	Small baby who lives in a shelter who gets hospitalized repeatedly (septic W/u) for fever and respiratory infections as a result of exposure to numerous people handling him/"helping to care for him".
Philadelphia	HOMELESS	9 year old boy who has started to wet his bed as a result of the stress of moving to a homeless shelter.

Philadelphia	HOMELESS	5 year old African American boy was hospitalized for pneumonia/hypoxemia 3 weeks after entering a housing shelter. He, his mother and brother were forced to stay in the shelter after their apartment had been destroyed in a fire. He and his brother have had multiple respiratory infections since remaining in the shelter, so far only one requiring hospitalization. They have become clinic patients of mine due to inability to travel to their own clinic. Though they remain in a housing shelter after 3 months, they are more fortunate than most of the others at the shelter. They have been told that they are on the top of the list for alternate placement due to their reason for placement.
Boston	INFECTIONS	My most frightening night on call came several months ago when a year-old girl walked into the emergency department and coughed up an enormous amount of blood. Trauma was initially suspected, but after mechanical ventilation was initiated and a full-body CT scan showed no evidence for this possibility, we had to look further. The most likely culprit was the severe water damage to her home, including a bathroom that was literally rotting away. It is likely that *stachybotroys atra*, the deadly fungus, was living in that bathroom, and its toxin set off the bleeding. When this poor girl recovered, we literally could not let her go home again.
Boston	INFECTIONS	The most memorable story I have dates back to my residency here. One of my favorite patients in my continuity clinic was a little boy whom I'd first met while rotating through the newborn nursery at the Brigham. His mom was an unmarried adolescent who was both articulate and motivated to take good care of her son (thus dispelling some stereotypes I had of adolescent parents!) However, I was shocked when, in answer to my questions about their living situation during one of Brandon's well-baby visits, his mom told me that she wanted to find her own apartment because they were currently living with her entire family... and casually mentioned that it sort of bothered her to find rats in the baby's bed with him in the morning! I must confess that, though I know she did eventually find different housing, I've lost touch with her since then & don't know if it was any better for them. Remembering the story does remind me to be vigilant about where we're sending babies home to...

N.Y.	INFECTIOUS DISEASE	I am an architect and would like to tell you about the Phipps Houses in New York City. Phipps Plaza South is a 294-unit, 30-story building constructed in the late 1960s under a HUD-insured mortgage program; its tenants are low- and moderate-income families who have experienced high rates (even for NYC!) of asthma, other respiratory problems, skin rashes, and fatigue. They have consulted the medical director of the Eastern New York Occupational Health Center, who believes that these conditions are linked to the presence of toxic molds, including stachybotrys and aspergillus. These molds grow in damp, cellulose-containing materials, including sheet rock. Phipps Plaza South has a well-documented history of water penetration through the exterior walls, as well as interior plumbing leaks and problems with the kitchen/bathroom exhaust vents. Management's response has been sporadic and has focused on cosmetic repairs; the underlying cause – water entering the exterior masonry cavity walls through joints between various construction materials – had not been addressed until demanded by the Department of Housing and Urban Development (HUD). HUD also required that air and bulk materials in a small number of apartments in which tenants had experienced major health problems be tested. I believe that samples from six out of six suspect apartments tested came back positive for one or both molds. This story is significant because toxic mold contamination may be more widespread than is commonly believed. Almost all housing built or renovated since the 1950s contains gypsum board (sheet rock); the paper backing of these panels seems to support mold growth when it is allowed to become damp. Other materials (cellulose fiber insulation, carpets and backing) are also vulnerable. Low- and moderate income people's housing in particular is likely to be poorly maintained; plumbing and exterior leaks may persist for long periods of time. Even when the leaks are repaired, damaged materials may be left in place. Like lead paint dust and asbestos particles, mold spores are very small and lightweight. When they are disturbed (either by "routine" renovations when their presence is not suspected, or by ill-advised "remediation"), they are released into the air and may become even more dangerous than when they were buried inside walls and ceilings.
Boston	INFECTIOUS DISEASE	**One of my clinic patients is a preschool child with severe asthma whose family was looking for section 8 housing because dust, cockroaches were a significant problem in the old apartment. I wrote a letter to housing authorities and the family was able to get a new apartment that was much better. The family reports the asthma has improved.**
Boston	INJURIES	Lewis is a young boy whose unsafe house put him at high risk for burns, falling out of a window and fires.
Boston	INJURIES	2 year old boy came to my practice for a routine visit. I noted he had a healed burn on his right hand, which his mom said was due to a kerosene heater. The family could not afford oil heat.

Boston	INJURIES	I visited a home of a young girl with asthma that was very dusty. Fortunately, there isn't a roach or rodent problem, but smoke detectors are absent, and the family cannot afford window guards.
Boston	INJURIES	At one two year old's house, I found that the water temperature was 150 degrees, putting her at risk of a burns. In addition, the mother does not have the financial means to buy windows guards to prevent an accident. I hope she will contact the landlord about reducing the water temperature.
Boston	INJURIES	I visited the home of a three children under age six. One has an elevated lead level (the home is full of chipping paint). The water temperature is 150 degrees, 30 degrees higher than normal. All the children are at risk. We will contact the landlord to reduce the water temperature and ensure the home is deleaded.
Boston	INJURIES	I just visited a house where three young children live. There is not adequate heating during the winter. There is only one possible fire escape exit. Further, the main window in the living room is floor high and doesn't even have a screen. It is very dangerous to young children. The mother said she would talk to the landlord about changes, and we will refer her to a lawyer if there are problems.
Boston	INJURIES	Several residents of Boston Public Housing (BHA managed) told me about situations involving extreme heat and inability to control high temperatures, difficulty with transfer applications and hopeless grievance procedures.
Boston	INJURIES	Laura, an 8-year-old girl, lived with her mother and 3-year old brother until they were evicted from their unsubsidized apartment. The family reluctantly moved in with relatives while they waited for housing assistance. During this time, Laura was physically abused by a relative, and the Department of Social Services placed her in a foster home.
Philadelphia	INJURIES	Katie is a 4 year-old with Down Syndrome who lives in West Philadelphia and has a lead level of 23. There was a fire in her apartment building and her family was forced to move out. They are currently unable to afford new housing and are living in cramped-quarters with their grandmother. Kristie (the sister of Katie above) is a 5 year-old with a hearing deficit and a lead level of 26. She has endured the same story as her sister, above.

Philadelphia	INJURIES	I care for a family in my clinic that is made up of a 1 year old, 2 year old, 5 year old and 25 year old mother. The family lives with the mothers parents for financial reasons. I discovered on a home visit with the family, that the grandfather is terminally ill and the entire first floor of the home is being used as his hospital room. The children must go through the room to reach the kitchen, small family room and their bedroom. There are 15 + medicine bottles within reach of the two older children as well as syringes and needles. The whole family sleeps in the same room in a single bunk bed. The portable potty trainer for the 2 year old sits at the corner of the room. The children have not had any ingestions, but have come to the emergency department for multiple lacerations, head trauma from falling from the bunk bed. For now, the mother has no financial way out of her living situation.
Philadelphia	INJURY	Toddler who came to the ER for the second time with a second degree burn—this time on the leg—as a result of getting burned from an exposed radiator in his home.
Boston	LEAD	I just witnessed the reunification of a young mother with her three children in a homeless shelter. The family had previously lived together in an overcrowded apartment with other extended family members. When the three children (ages two, five and six) all tested high for lead, the mother voluntarily signed the children over to custody of the Department of Social Services so they could be placed in a lead-free home. The mother then tried and failed to find safe and affordable apartment for her family; moving to a shelter became her only chance to live with her children in safety. She is now homeless, searching for affordable housing, with little hope for securing a unit. At least her children have their mother back.
Boston	LEAD	I just visited a home with six children all under age six. Two of the children are known to have elevated lead levels and the kitchen has peeling lead paint. Also the home does not have adequate heating during the winter. We discussed the mayor's hot line for heating problems and we will work on deleading.
Boston	LEAD	David is a 4 year old with lead poisoning. When I visited the house, it was full of chipping lead paint.
Boston	LEAD	I visited the home of a one year old child whose asthma is made worse by a rodent problem at home. In addition, the house is full of chipping lead paint. The family is temporarily moving so repairs can be done on the home, but it is questionable whether or not all necessary repairs will be made by the landlord.

Boston	LEAD	I work as a staff pediatrician in the Boston Medical Center International Clinic, one the participating sites in the mandatory Massachusetts Refugee Health Assessment Program. I recently cared for a a 3 year old boy who was a newly arrived refugee from Somalia. He had been in the USA for about one month when I met him, after fleeing his war-torn country as an infant and living in a refugee camp in Kenya. As part of the required health screening, we performed a blood lead test. His level came back quite elevated with indicators of severe anemia and iron deficiency, all correlating with a diagnosis of Class III lead poisoning. He required an urgent referral to our lead poisoning program which immediately began lead decontamination and then iron repletion. On inspection of the house to which he and his family (including other young children) had been resettled, marked lead contamination was found, in violation of Massachusetts housing codes.
Missouri	LEAD	My daughter was lead poisoned because nobody told us our house built in 1906 had lead paint. We had to move from there when we found out what was going on, and I believe my child's development is still being affected.
Philadelphia	LEAD	Toddler hospitalized for treatment of lead poisoning whose landlord will not cooperate with lead abatement.
Philadelphia	LEAD	Child 1 lived in a narrow rowhouse in W. Phila. Lead of up to about 60 mcg/dl. Multiple lead violations—the city health dept. had to abate as the landlady would not. When I visited there was falling ceiling, big holes in bathroom ceiling, hot plate and space heaters (fire hazards), little furniture and floor in poor repair. After abatement landlady harassed this tenant by not providing heat, pouring water from her 2nd floor apartment until water leaked into the Child's apt. The mother was referred to tenant rights groups--legal rights groups but decided not to fight. The family moved out into a homeless shelter.
Philadelphia	LEAD	Child 2 has been lead poisoned in 30-40 range mostly for about a year. Very bright and charming; seems to have escaped major cognitive/behavioral effects of lead. Home has not been abated despite repeated attempts at securing this. City to go in soon and do the abatement. Landlord trying to harass and take advantage of this grandmother; she's a very tough lady and fighting this.
Philadelphia	LEAD	Child 3 (who is developmentally delayed with autism) is currently in the hospital for her third episode of lead poisoning. Biological parents neglectful; lead levels not followed up, appointments missed, father owned home and didn't do abatement. Finally removed to foster home with loving parents who have made their home safe. May have exposure to lead in school setting, as well.

Philadelphia	LEAD	Child 4 is currently getting treatment for a lead level of 72. Home has front porch with incredible peeling/chipping paint; probable source of lead. Had lead of 46; family delayed in getting to clinic for repeat—had risen in the interim. Luckily her guardian is eligible for the HUD Grant sponsored lead hazard abatement of private housing—this is due to go into effect soon and family to be relocated temporarily. So this is a partial success story.
Philadelphia	LEAD	Children 5 and 6 (brothers)—lead levels elevated to 80s and 50s respectively, last summer. Youngest boy was about 3 and windowsills full of lead paint chips he was eating as he watched out the window. Home has since been abated—looks very nice without apparent lead hazard. However, house in back of them with horrendous chipping and peeling of paint on big porch; concern about chips blowing into their backyard. Violence a concern—Mom witnessed someone being shot and killed from a bedroom window.
Philadelphia	LEAD	Child 7—Family immigrated from somewhere in Africa. Child with extreme elevation of lead level last summer to 80s. Home abated in meantime. Now another elevation to 70s. Health dept. searching out source of lead exposure.
Philadelphia	LEAD	Rick is a 4 year-old male who lives in West-Philadelphia and has a lead-level of 22. The Philadelphia Housing Authority visited his home and found high lead levels in the bedroom and living room. The landlord has not made any improvements yet in the condition of the apartment and Rick's lead level continues to be high.
Philadelphia	LEAD	Tammy is a 2 year-old girl who lives in West Philadelphia and had a lead level of 34. The landlord refused to make any changes and instead of taking legal action the family decided to move. Fortunately Tammy is followed in a lead clinic at the Children's Hospital of Philadelphia and her level had decreased to 19.
Boston	NUTRITION	Ruby is a 21 month old girl with rickets. Her mother was deserted by her boyfriend while pregnant. After birth they lived in a shelter for over a year. The shelter was in a very dangerous area and so mom kept her inside all the time, which lead to rickets in a dark skinned child with no sunlight. Even after they got housing, it was far away from friends or her doctor and she had no car. While housing assistance came two years later and was far away from mom's support systems, she was grateful for it.

Los Angeles NUTRITION

This is a story of my three year old patient Nicki.

Already in a difficult social situation because of the conflict between the mother and the father over everything, the medical needs for Nicki are made even worse by having to change residences frequently, including temporary shelters, homeless shelters, rentals, friends and I'm sure other housing situations that her mother will not tell me.

Nicki has asthma which is fairly mild, but always flares up when they are placed into a shelter. The mother has a history of being abused as well, and without transportation, sometimes it is difficult getting them both in for medical care. Nicki's nutrition has suffered dramatically; I had to repeatedly stop the mother from diluting the formula in the first couple of months because she could not afford to buy more and she could not make it to her WIC appointments because she was too poor to afford even a bus ride. Now she has fallen across 4 percentile lines (not 4%, but 4 curves!!) What makes it worse is that although she had hit her milestones dead on, her language skills are horrible and there is some early evidence of social dysfunction. How much is environmental and how much is genetic is difficult to say, but for sure, her housing situation didn't help.

Nicki's mother did try to find alternative housing, but even through local and state agencies, she was unsuccessful. They remain transient to this day; I've not seen them for about 8 months now. I heard that they were leaving Los Angeles for another county in which it was easier to live and find help.

Philadelphia NUTRITION

Sarah is a 21 year old mother of four. When I first met her, two years ago, she was living with her four children, her sister, brother-in-law and their five children in a three bedroom rowhouse rental. Since then, we have been trying to help her get housing. Two of Sarah's kids have severe failure to thrive, requiring inpatient evaluations, and eventually tube feeds for one. Two of the kids have asthma and have had numerous hospital admissions in the last two years.

Last year, Sarah's sister and brother in law leased a home in North Philly. Sarah went with them and lived on the third floor of the home in two rooms for 9 months until her sister asked her to leave.

During all this time she and her family were living on a PA check of $450 a month. The only way that Sarah was able to afford the security deposit on the apartment she eventually acquired was that she collected a year's worth of SSI reimbursement for her daughter. She now lives on $497/month

In Philadelphia, no applications are being accepted for public housing. The waiting list is 10 years long. Priority is given only if a family lives in a shelter for > 6 months. So, families like Sarah's who are able to live with relatives take two years, and reliance on other public programs (which are also in jeopardy) to obtain an apartment.

Boston	VIOLENCE	I recently saw a 9 year old boy in development clinic. He had been failing school and having nightmares of the police coming to arrest his family. His mother worked two shifts a week as a nurses aide and his father worked one in maintenance, but recently lost a second job. As a result, the family had to move to a cheaper apartment in an unsafe neighborhood. His parents had refused to let him leave the apartment and he had already witnessed violence. His younger brother reported to the staff that neither child had eaten all day.
Boston	VIOLENCE	One of my patients, Cindy, is a six month old girl whose mother was in a relationship that involved domestic violence. The mother stated she felt ready to leave, as her husband had threatened to kill her and her daughter. The mother was in Section 8 housing at the time. When she inquired about moving the housing authority told her she would be made a priority but they could not get her housing right away, so she would need to go into a shelter. The mother did not want Samantha in a shelter because she would get sick. The mother had already filed a restraining order, but did not feel safe because her husband had already violated the order. She felt stuck in an unsafe situation for herself and her daughter.
Boston	VIOLENCE	I am taking care of a patient in my primary care practice who I am very concerned about and feel unable to help. He is a 3 year old male who lives in the projects in Charlestown with his mother and brother. The mother relates stories of the three of them being harassed and threatened as they come and go from their apartment. She describes the boys seeing fighting, guns, and drug dealing on a daily basis. She says that my patient has become very fearful and withdrawn since moving to these projects. I am concerned about the possibility of developmental delay in this patient, but I have never been able to adequately assess him because he cowers behind his mother and screams and cries when anyone comes into the examining room. The mother tells me that he has been becoming more and more frightened of everyone recently. This seems out of proportion to the stranger anxiety that one might expect from a child this age.

Philadelphia VIOLENCE

Donald was 5 when I met him. In the course of a routine physical exam, I found extensive, well-healed burn marks on both of his legs. "That was when we were living in the other place", said his mother. 'The other place' was an unfurnished room in a dilapidated house in North Philadelphia, she explained, which she, Donald, and Donald's brother and sister shared. Most of the other tenants in the house were crack addicts. Donald's father stayed with the family off and on. Once, he was cooking on a hot plate while Donald was sleeping on the floor, and the hot plate fell on Donald's legs, who suffered third-degree burns.

As a result of Donald's hospitalization, a social worker came to the home. She concluded that it was unfit for a child to live in. The family was placed on a waiting list for section 8 housing. After several years on the waiting list, Donald and his family have recently moved into a small row house with the help of a section 8 subsidy. Donald's mother's face lights up with a smile when she describes the house— two bedrooms, a living room, and a little grass yard in the front. Donald's sister loves to play in the small yard, and Donald can safely walk in the neighborhood. Donald's mother, who has a several medical problems, works from home making Teddy bears, and spends most of her spare time fixing up the house, the first safe place she has known in many years.

Seattle VIOLENCE

I cared for a 8 year old boy with a forearm fracture after falling while climbing on a rickety broken fence in the VERY small outside area they had to play in. I have also watched gang behavior develop in these boys (believe me, I would join a gang, too, if I had to roam those halls alone!), but I guess some people don't consider that health-related...